



# Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



**Week 1 - Valid: Mar 26, 2014 - Apr 01, 2014**



**Week 2 - Valid: Apr 02, 2014 - Apr 08, 2014**



Produced: 03/25/2014

Forecaster: Rosencrans

Confidence		
High	Moderate	
		Tropical Cyclone Formation Development of a tropical cyclone that eventually reaches tropical storm/cyclone strength.
		Above-average rainfall Weekly total rainfall in the upper third of the historical range.
		Below-average rainfall Weekly total rainfall in the lower third of the historical range.
		Above-normal temperatures 7-day mean temperatures in the upper third of the historical range.
		Below-normal temperatures 7-day mean temperatures in the lower third of the historical range.

Product is updated once per week. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



Recent observations, including patterns of anomalous zonal winds and upper-level velocity potential, indicate that the MJO related circulation has broken down and the enhanced phase has become stagnant over the Indian Ocean. MJO indices, such as the Wheeler-Hendon RMM index and the CPC velocity potential index indicate very weak signals. Hovmoeller diagrams of OLR indicate interference from other modes of tropical variability, such as a Kelvin Wave that moved across the Date Line during the past week and another Kelvin wave entering the Indian Ocean. A slowly evolving base state favoring enhanced convection over anomalously warm sea surface temperatures (SSTs) in the west-central Pacific also continues to contribute significantly to the pattern of global tropical convection.

The dynamical model MJO index forecasts diverge somewhat in their depiction of the future state of the MJO. The GFS based solutions depict the enhanced convective phase remaining over the western Indian Ocean with eastward propagating during Week-1 and a retrograding signal during Week-2. Many other models depict the same slow propagation during Week-1, but do not include the retrograding signal during Week-2, instead continuing eastward propagation of a weak signal. The Global Tropical Hazards and Benefits Outlook is based on a continuation of a weak MJO signal through Week-2, although other modes of variability are likely to be as significant during the two week period.

Tropical Cyclone Gillian is forecast to move southward, about 600-1000 miles west of Australia during Week-1. The remnants of the convectively active phase of the MJO increase the threat of tropical cyclone development over the central Indian Ocean, while transient Kelvin waves increase the threat near Madagascar and over the southwestern Pacific. The interaction of atmospheric Kelvin Waves, the evolving background state, and the weakened MJO are likely to produce below-average precipitation over much of the Maritime Continent and above-average rainfall over the Central Pacific. Areas of below-average rains are anticipated across Angola, DRC, Congo, and CAR, as well as southern Mozambique, Zimbabwe, and South Africa. Above-average rains are favored over northern Mozambique, Malawi, Tanzania and parts of Madagascar, along with a slightly heightened risk of tropical cyclone formation over the Mozambique Channel.

During Week-2, there is growing uncertainty about which modes of tropical variability will dominate the pattern, therefore, forecast confidence in Week-2 is lower than Week-1. Below-average rains across the western Maritime Continent are favored, with above-average rains across the southwest Pacific and south-central Indian Ocean. The threat of the formation of a tropical cyclone is slightly enhanced over the northwest Pacific, although the confidence in the formation of a tropical cyclone is low to moderate.